

Digital Photography Tips

Image Size (Resolution)

If you have your camera set at a low resolution, like 640 x 480, so you can get as many pictures on your memory card as possible, and you take a beautiful picture that you'd like to have printed in a magazine, the maximum size it can be printed is only about 2.5" x 2". If this same picture had to be cropped, it'd end up being even smaller. On the other hand, if you recorded your image at 2272 x 1704 (the approximate resolution of a 4 megapixel camera), you could have the image printed at about 8" x 10" and it would look great. Plus, having all those extra pixels enables you to crop your image and still have enough resolution to produce a good image.

Approximate number of shots on a Memory Card					
Camera	File size*	128 MB	256 MB	512 MB	1 GB
2 MP	900 KB	142	284	568	1137
3 MP	1.2 MB	106	212	426	853
4 MP	2.0 MB	64	128	256	512
5 MP	2.5 MB	51	102	204	409
6 MP	3.5 MB	40	80	160	320

*the average file size for a high resolution (fine) JPEG

File Type

To maintain image quality, convert pictures you've shot in JPEG to TIFF. You can then manipulate them in an imaging program without having them degrade. This is because JPEG files are what is referred to as "lossy", which means every time you resave them they lose some data. TIFF files, on the other hand, use "lossless" data compression – they can be opened and saved as many times as you like without losing any data. But remember to always save your original image file, just in case you accidentally mess up your saved file.

Zoom

Digital zoom is pretty much a worthless feature; all it does is enlarge a section of the image with a resulting loss in resolution. An imaging program like Photoshop will allow you to do a digital zoom with better results. If you're going to use the zoom function, only use the optical zoom

Blurry Pictures

If you end up with a lot of blurry images, you should consider using a tripod or monopod. Another good technique to reduce camera shake is to put your arm through the camera strap so that the strap crosses your back and ends up under your right armpit. Then adjust the strap so the camera's at eye level when you pull it forward.

Light and Lighting

Next to the subject, the most important part of every picture is the light. It affects the appearance of everything you photograph.

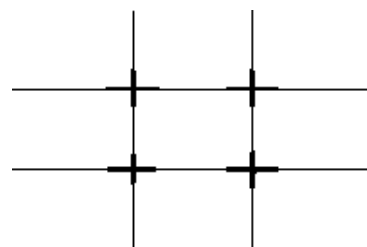
- In order to take great outdoor portraits, use one of the best hidden features on digital cameras – the “fill flash” or “flash on” mode. In flash on mode, the camera exposes for the background first, and then adds just enough flash to illuminate your portrait subject. The result is a more professional looking photograph.
- When shooting outdoor portraits and sunny landscapes, try changing your white balance setting from auto to cloudy. This adjustment is like putting a mild warming filter on your camera. It increases the reds and yellows resulting in richer, warmer pictures. Another technique for landscapes is to simply take pictures early or late in the day when the light is warm and casts long shadows.
- A polarizing filter will add some “zing” to your landscapes and general outdoor images. By reducing glare and unwanted reflections, polarized shots have richer, more saturated colors, especially in the sky. If your digital camera can't accommodate filters just use a pair of quality sunglasses. Place the glasses as close to the camera lens as possible, and check their position in the LCD viewfinder to make sure you don't have the rims in the shot.

Composition

- To improve pictures, you will often want to move the subject to the left or right of the center of the picture. To avoid having your subject out of focus, you'll need to first lock the focus with the subject in the middle and then recompose the picture so the subject is away from the middle. You need to do this because most auto-focus cameras focus on whatever is in the center of the composition – which in this case is the background, not the subject.
- You may also want to try a new point of view. Get down low and shoot up, or get up on something like a chair or ladder and shoot down. Tilt the camera to induce some dynamic tension, or come in very close to your subject.
- Nothing ruins an otherwise good photo like stray objects that detract from your composition. If there's a lamp post, car, or anything else unsightly, remove it from view by either rearranging the area or blocking it out of the frame. Also, notice how objects in the background interact with your subject. A tree that appears to be growing out of someone's head, for example, will ruin an otherwise good picture.

The Rule of Thirds

One of the most popular 'rules' in photography (and among



artist as well) is the “Rule of Thirds”. Using this rule you simply draw imaginary lines dividing the image into thirds both horizontally and vertically. Rather than placing your subject directly in the center of the grid, try placing it on one of the four lines to create a more interesting picture.

Other Considerations

- If you're planning to document a USFWS work project, have employees wear uniforms and/or hats which would show the Service emblem. Have any partner organizations wear something to show their logos as well.
- Think about shots that would capture the essence of what's going on – think “action shot”.
- Hands-on working with wildlife almost always make interesting shots - just make sure when you shoot the critter it is positioned at such an angle that clearly shows markings, size, etc., so that there's no doubt as to what it is.